IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Appellants:	Patrick C. St. Germain et al.	
Application No.	10/717,019	
Filed:	November 19, 2003	Group Art Unit: 3654
For:	WEB TENSIONING DEVICE WITH PLURAL CONTROL INPUTS	
Examiner:	Scott J. Haugland	Attorney Docket No. SSS-109

REPLY BRIEF

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This Brief is submitted in reply to the Examiner's Answer mailed on 28 November 2006.

The Examiner concedes that the primary reference, Cote, does not disclose that the torque applied by the piston/cylinder assembly 17 is substantially the same as the force of the dancer arm acceleration or that it is increased or decreased by this force. This deficiency in the primary reference is not cured by Rajala, the secondary reference, because the Rajala teachings do not contain any suggestion whatsoever that the acceleration of a pivotably mounted dancer arm be measured or monitored. Rajala also fails to teach how such measuring or monitoring is to be achieved.

Rajala also neither shows nor suggests an angular position sensor.

The teachings of Cote and Rajala, whether taken together or separately, fail to suggest the presently claimed apparatus that detects the acceleration of the dancer arm and utilizes the detected acceleration to apply a compensating torque component. Cote positions its dancer roll to maintain a predetermined tension in the web based on the caliper of the web material (Col. 1, lines 54-58). Rajala's device cannot do that, and thus is not even combinable with the teachings of Cote.

The piston/cylinder assembly 17 of Cote clearly is not an angular position sensor in any event. If it was such a sensor, the Examiner would not have even sought to apply Rajala as a secondary reference against appealed claims 10, 11, 13 and 14.

Rajala does not measure acceleration of his dancer roll. Instead, Rajala monitors web tension incrementally (Col. 3, lines 1-2; col. 5, lines 41-57), dancer position vertically (Fig. 2; col. 7, lines 40-49), dancer roll translation velocity (Col. 8, lines 51-54), as well as web velocity (Col. 8, lines 60-65). That is indeed a far cry from the approach taken by the appellants as defined by the claims on appeal.

Rajala does not even mention dancer roll acceleration as a parameter to be measured and to be used for web tension control. As concisely stated by Rajala in the Abstract:

> "Tension is controlled in a dancer control system by connecting a corresponding dancer roll to a servo motor and the like, sensing position, tension and velocity parameters related to the web and the dancer roll, and providing active gain force commands to cause translational movement in the dancer roll to control temporary, short term tension disturbances in the web" (Emphasis added).

This is an approach to web tension control entirely different from that presently claimed.

Claim 11 defines a particular type of encoder. The Examiner has not identified with particularity in Rajala any position sensor that meets the limitations of claim 11.

Regarding claims 13 and 14, the mere mention of electric spindle drive for rocker arm 14 does not vitiate the patentability of the present invention. Additionally, there is no enabling disclosure in Cote. That particular reference also fails to suggest the use of a limited angle servo motor as defined in claim 14. The Examiner's own, unsupported opinion as to what would or would not have been obvious to one of ordinary skill is of no moment and cannot support a rejection of these claims.

With respect to claim 12, Kawabata et al. clearly fail to cure the deficiencies of Cote and Rajala as references against the claims on appeal. There would have been no reason whatsoever for one of ordinary skill to put an optical angular position sensor on Cote's rocker arm 14. The Examiner has not advanced any valid reason why one of ordinary skill would have done so. Kawabata et al. only teach the use of a distance sensor 52 in combination with

arm member 51, not an optical angular position sensor, for monitoring the position of arm 4 in its system. See, for example, col. 4, lines 11-18 and Fig. 1.

Besides, the manner that Kawabata et al. adjust web tension is entirely different from that utilized by Cote. One of ordinary skill would have had no need to turn to Kawabata et al. when seeking to improve its own system, especially since the pressure transducer 19 is not to be replaced. The term "encoder" has an art recognized meaning, to wit, a device used to change a signal or data into a code. Indeed, it is the appellants' disclosure that is more detailed and specific than that of Kawabata et al.

Reversal of the outstanding rejection is requested.

Respectfully submitted,

January 29, 2007

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CERTIFICATE OF FACSIMILE TRANSMISSION

I hereby certify that this REPLY BRIEF is being transmitted by facsimile transmission to Fax No. 571-273-8300 on January 29, 2007.

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